

The second kind of child restraint designed for this group is the protective shield type of seat. Like the one with a five-point harness, this car seat is secured by the adult lap belt. It requires no top anchor strap, and this makes it adaptable to a variety of vehicles. The protective shield spreads the force over a very wide area making it an effective design for head-on impacts. This type of restraint gives maximum protection when used in the centre of the seat.

- **Children weighing more than 40 lb. (18 kg)** can use the regular lap belt, but parents should make sure that the belt is snug and low over the child's hips. Wearing it over the tummy can be dangerous. If a child of this size must ride in the front seat, and there is a shoulder belt, it should be checked carefully to ensure that it fits correctly. The shoulder belt should not be allowed to pass across the child's face or neck.

Shoulder belts should not be worn by children or any person under 55 in. (137.5 cm) in height. *And, as a general rule, children should ride in the rear seat.* In cases where youngsters less than 55 in. (137.5 cm) must ride up front, most of the newer three-point adult seat belts enable them to wear the lap belt, while passing the shoulder belt behind the body and against the seat back.

### What to consider when buying

A number of brands of child restraints are available in Ontario. Although Regulation 23 of the Canadian Hazardous Products Act aims to ensure that no seat on the market after November, 1975, will jeopardize a child's safety, some models may be more suitable to a

particular child than others. When purchasing child restraints, parents should look for these features:

- room for the child to sit comfortably
- ease in placing a child in and out of the restraint
- ability to install the restraint according to manufacturer's instructions—especially regarding the top anchor strap
- avoidance of sharp edges that are likely to break or cut the webbing.

Most child restraints can be found in department stores or automotive supply stores and in their catalogues, but prices vary greatly so it's a good idea to shop around.

When properly installed and used 100 per cent of the time, seat belts and child restraints ensure safer travelling for every member of the family. The extra effort to buckle yourself and your child safely in the car is a small price to pay for the protection you will both receive.

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# Buckle up the kids

Child safety in cars

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Dennis R. Timbrell,  
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You worry about your children — right? About their clothes, their shoes, the food they eat. You try to make sure they get the best within the limitations of the budget. But, unintentionally, you may be neglecting to protect them from a danger they're exposed to regularly while riding in your car.

If you aren't buckling up your children in properly fitted safety restraints, then one day you may not have them around to worry about.

Shock tactics, you may say — but consider these statistics. Nineteen per cent of car occupants killed or injured in Ontario in 1976 were children under 16.

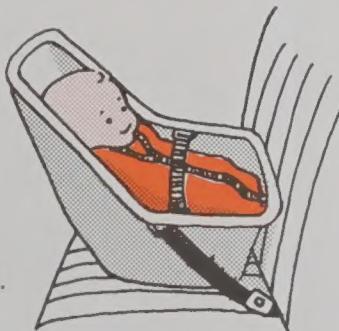
### What can be done

Every child, from birth on, should ride protected by a suitable safety restraint, specially designed for the size of the passenger.

### The moment of impact

What happens when an automobile is involved in a head on collision? At 50 km/h (30 mph), most of the impact is absorbed by the front end of the car, acting as a kind of cushion. The car comes to a complete halt a fraction of a second later. Unrestrained passengers slam forward, colliding with the car interior, at

*Infant carrier is strapped to the seat by an adult lap belt.*



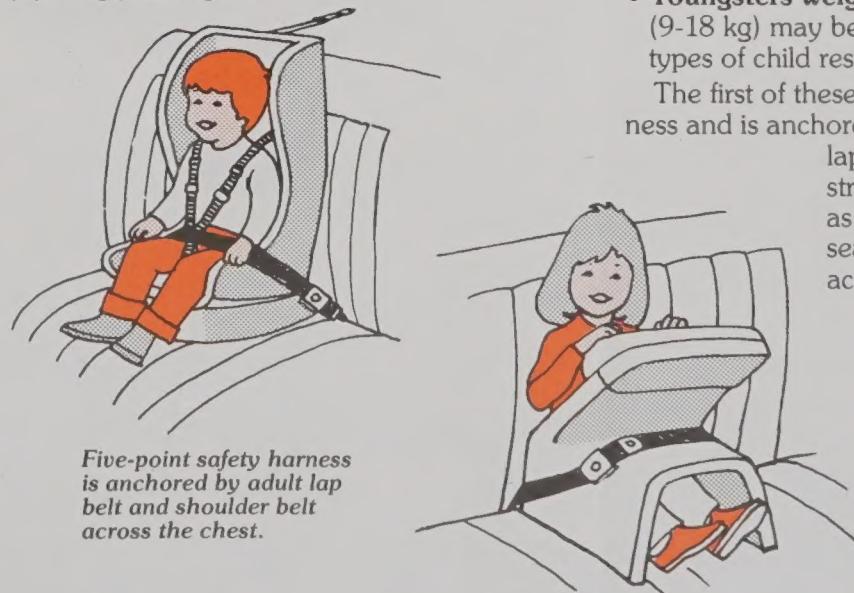
50 km/h. It is this impact that causes human injury or even death.

For children, it can be even more hazardous. They can be crushed by an unrestrained adult or, especially, if they're leaning out of the window, they can be ejected from the car — with great force.

### The young bodies

A child is not a miniature adult. For one thing, the head is softer, more fragile, and much larger in proportion to the rest of the body. The rib cage is thinner and more elastic. In short, a child is much more vulnerable to injury than a grown person.

Because the youngster's body is not fully formed, lap and shoulder belts intended for adult use do not provide full protection for very young passengers.



*Five-point safety harness is anchored by adult lap belt and shoulder belt across the chest.*

Child restraints, on the other hand, are especially designed to keep the youngsters safely in their seats, and to carefully distribute the impact forces over the strongest parts of their bodies.

### Kinds of restraints

Children who need special attention fall into three basic age groups.

- **Infants weighing up to 20 lb. (9 kg)** are best protected when harnessed in rear-facing seats anchored to the car by the adult lap belt. When you are the only adult in the car with an infant, it's a good idea to put the child, secured in a rear-facing child restraint, on the front seat beside you, as this reduces the length of time your eyes are off the road checking on the baby.
- **Youngsters weighing between 20-40 lb. (9-18 kg)** may be protected by either of two types of child restraints.

The first of these has a five-point safety harness and is anchored to the car by the adult lap belt and by a top anchor strap. This strap is important as it prevents the top of the seat from flying forward in an accident, but it is often difficult to install in vehicles such as station wagons and trucks.

*Protective shield is secured by a lap belt, but offers no side protection.*